United Nations A/CN.4/551

General Assembly

Distr.: General
11 February 2005

Original: English

International Law Commission
Fifty-seventh session
Geneva, 2 May-3 June and 4 July-5 August 2005

Third report on shared natural resources: transboundary groundwaters

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05-23663 (E) 080305

I. Introduction

1. At the fifty-sixth session of the International Law Commission in 2004, the Special Rapporteur presented his second report (A/CN.4/539 and Add.1), providing a general framework and six preliminary draft articles on transboundary aquifers and aquifer systems. The Commission considered the second report of the Special Rapporteur at its 2797th, 2798th and 2799th meetings, held on 12, 13 and 14 May 2004, respectively.[1] At its 2797th meeting, the Commission established an open-ended Working Group on Transboundary Groundwaters, which held three meetings to consider the draft articles proposed in the second report. The Working Group also had two informal briefings by experts on groundwaters, organized by the United Nations Educational, Scientific and Cultural Organization (UNESCO)[2] and an informal meeting with members of the Water Resource Committee of the International Law Association. The Sixth Committee of the General Assembly of the United Nations considered the parts of the report of the International Law Commission[3] related to this topic on 5, 8 and 9 November 2004.[4]

2. The Special Rapporteur believes that the approach which he adopted in his second report has received general support both in the Commission and in the General Assembly. Accordingly, in the present third report, he proposes a complete set of draft articles for a convention on the law of transboundary aquifers, taking into account comments and suggestions previously offered in the Commission and the Sixth Committee. In order to limit the length of the report, explanations of draft articles are concise. Important references to State practice and international instruments will be provided in an addendum to the present report and further data will be made available to the members of the Commission at the time of deliberation on the report. The Special Rapporteur would like to reiterate that although the proposals are presented in the form of draft articles of a convention, this does not prejudge their final form. In his view, a discussion on their final form should preferably be held once the substance has been more or less agreed upon.

3. In preparing the present report, the Special Rapporteur has continued to receive valuable support from the group of experts organized under the auspices of the UNESCO-International Hydrological Programme (IHP), in the framework of its International Shared Aquifers Management project (ISARM), and from expert members of the Study Group on Shared Natural Resources, established by the Ministry of Foreign Affairs of Japan. Aware of the problem of the scarcity of State practice and legal instruments in this area, the Special Rapporteur is making an effort to collect such materials. Furthermore, the replies from Governments and relevant international organizations to the questionnaire prepared by the Commission[5] would facilitate the preparation of the study of this topic.

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[1] See A/CN.4/SR.2797, SR.2798 and SR.2799.

[2] The briefings were conducted by experts from the Economic Commission for Europe (ECE), UNESCO, the Food and Agriculture Organization of the United Nations (FAO) and the International Association of Hydrogeologists (IAH).

[3] *Official Records of the General Assembly, Fifty-ninth Session, Supplement No. 10* (A/59/10), paras. 26-28 and 73-142.

[4] A/C.6/59/SR.21, SR.22, SR.23 and SR.25.

[5] *Official Records of the General Assembly, Fifty-ninth Session, Supplement No. 10* (A/59/10), paras. 26-28 and 81.

II. Preamble

4. The need to have an explicit reference to General Assembly resolution 1803 (XVII) on permanent sovereignty over natural resources in the preamble to the draft articles was advocated particularly by those delegations that are of the opinion that water resources belong to the States in which they are located and are subject to the exclusive sovereignty of those States. The Special Rapporteur recognizes the sensitivity of the question and is willing to include such a reference in the preamble. However, in accordance with the general practice of the Commission, he prefers to postpone the formulation of the preamble until after the substantive draft articles have been agreed upon and all factors to be incorporated in the preamble are known.

III. Scope

5. The proposed draft article on the scope of the draft convention reads as follows:

Article 1
Scope of the present Convention

The present Convention applies to:

(a) Utilization of transboundary aquifers and aquifer systems;

(b) Other activities that have or are likely to have an impact upon those aquifers and aquifer systems;

(c) Measures of protection, preservation and management of those aquifers and aquifer systems.

6. This draft article has been reformulated to take into account the suggestion to clarify further the three different categories of activities to be covered by the draft convention. It does not alter the substance proposed in the second report. Thus, only transboundary aquifers and aquifer systems are covered by the draft convention and domestic aquifers and aquifer systems are excluded from its scope. Even if a domestic aquifer or aquifer system is linked to an international watercourse in the territory of a State where such an aquifer or aquifer system is located, it would fall outside the scope of the draft convention. However, it may well be covered by the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses ("1997 Watercourses Convention").[6] Subparagraph (a) of this draft article relates to the utilization of transboundary aquifers and aquifer systems by the aquifer States in which they are located, in the absence of an agreement that allows other States to do so. The activities and measures referred to in subparagraphs (b) and (c) may, in exceptional situations, be carried out by non-aquifer States and outside the territories of aquifer States. The extent of such exceptional situations is to be clarified in the relevant articles. The term "impact" used in subparagraph (b) should be construed as a wider concept than "harm".

[6] General Assembly resolution 51/229, annex, of 21 May 1997.

IV. Definition

7. The proposed draft article on definition reads as follows:

Article 2
Use of terms

For the purposes of the present Convention:

(a) "Aquifer" means a permeable [water-bearing] geological formation underlain by a less permeable layer and the water contained in the saturated zone of the formation;

(b) "Aquifer system" means a series of more than two aquifers [, each associated with specific geological formations,] that are hydraulically connected;

(c) "Transboundary aquifer" or "transboundary aquifer system" means, respectively, an aquifer or aquifer system, parts of which are situated in different States;

(d) "Aquifer State" means a State Party to the present Convention in whose territory any part of a transboundary aquifer or aquifer system is situated;

(e) "Recharging aquifer" means an aquifer that receives a non-negligible amount of contemporary water recharge;

(f) "Non-recharging aquifer" means an aquifer that receives a negligible amount of contemporary water recharge.

8. The definition of an aquifer in subparagraph (a) has been reformulated to meet the concerns expressed. A precise description of the two elements that an aquifer consists of is offered. One element is the underground formation which functions as a container for water. The other element is the water contained therein and which is extractable. The term "rock formation" used in the second report is susceptible to the interpretation that the formation is made up of hard and solid rock. In order to clarify that the formation can consist not only of rock in common usage but also of other materials, the term "geological formation" is opted for. A geological formation consists of naturally occurring materials, either consolidated or unconsolidated, such as rock, gravel and sand. The permeability of the underlying layer is less (lower) than that of the geological formation in the aquifer. A permeable geological formation has pores that permit liquids or gases to pass through. As we are currently dealing only with water and not with oil or gas, a modifier, "water-bearing", is inserted before the words "geological formation". However, the modifier could be suppressed as it is obvious from the context that we are not dealing with any resource other than water. Furthermore, the definition is limited to the water contained in the saturated zone of the aquifer since only that water is extractable. The water above the saturated zone in the aquifer, like the water outside the aquifer, is in the form of vapour and cannot be extracted. The original formulation used in the second report, "capable of yielding exploitable quantities of water", was intended to describe this situation. However, the Special Rapporteur has decided not to use the term "exploitable" as it invited controversy over the question whether it is

exploitable technically or economically and whether it is exploitable at present or also in the future.

9. Subparagraphs (b) to (d) remain unchanged in substance. Previously, the legal fiction that an aquifer system also includes a single aquifer was employed for the sake of economy. It caused some confusion and accordingly aquifer system is now defined as a series of more than two aquifers. The necessary corrections resulting from this change have been made in all the draft articles. In subparagraph (b), the expression "each associated with specific geological formations" is inserted to indicate that an aquifer system could consist of aquifers not only of the same geological formations but also of different geological formations. However, from a legal point of view, this phrase does not add or detract anything and could be suppressed. The view was expressed that the concept "transboundary" must be defined. At present, the term is always used in conjunction with aquifer in the proposed draft articles. Accordingly, the Special Rapporteur feels that the definition of "transboundary aquifer" and "transboundary aquifer system" in subparagraph (c) would suffice. If, however, we were to use the term "transboundary" in other contexts, such as transboundary harm, a definition would be required.

10. The definitions of recharging and non-recharging aquifers became necessary because, pursuant to draft article 5, different rules will apply to each category of aquifers. The water in a recharging aquifer is a renewable resource and the water in a non-recharging aquifer is a non-renewable resource. In reality, practically all aquifers may receive some recharge of water since absolutely impermeable underground layers might not exist. However, if such recharge is negligible from the point of view of the management of aquifers, we must treat the water in those aquifers as a non-renewable resource. An absolute criterion for negligibility does not exist since it would depend on the size of the aquifer and the quantity of the water contained therein. Furthermore, there should be no gap or overlap between recharging and non-recharging aquifers. Therefore, the Special Rapporteur has used the term "non-negligible" in subparagraph (e). Groundwater experts maintain that, in defining two categories of aquifers, recharge must be limited to natural recharge. The Special Rapporteur, however, feels that when an aquifer is capable of receiving artificial recharge, or is in fact receiving such recharge, that aquifer should be classified as a recharging aquifer for the purpose of implementation of the provisions of the draft convention.

V. Bilateral and regional arrangements

11. The proposed draft article on bilateral and regional arrangements reads as follows:

Article 3
Bilateral and regional arrangements

1. For the purpose of managing a particular transboundary aquifer or aquifer system, aquifer States in whose territories such an aquifer or aquifer system is located are encouraged to enter into a bilateral or regional arrangement among themselves. Such arrangement may be entered into with respect to an entire aquifer or aquifer system or any part thereof or a particular project, programme or use except insofar as the arrangement

adversely affects, to a significant extent, the use by one or more other aquifer States of the water in that aquifer or aquifer system, without their express consent. Any State in whose territory such an aquifer or aquifer system is located is entitled to participate in the negotiation and to become a party to arrangements when such arrangements are likely to prejudice their positions vis-à-vis that aquifer or aquifer system.

2. Parties to an arrangement referred to in paragraph 1 shall consider harmonizing such arrangement with the basic principles of the present Convention. Where those parties consider that adjustment in application of the provisions of the present Convention is required because of the characteristics and special uses of a particular aquifer or aquifer system, they shall consult with a view to negotiating in good faith for the purpose of concluding an arrangement beneficial to all the parties.

3. In the absence of an agreement to the contrary, the present Convention applies to the aquifer or aquifer system referred to in paragraph 1 only to the extent that its provisions are compatible with those of the arrangement referred to in the same paragraph.

12. The importance of bilateral or regional arrangements that take due account of the historical, political, social and economic characteristics of the region and of the specific conditions of the aquifer or aquifer system has been stressed by many members of the Commission as well as by delegations in the Sixth Committee. The Special Rapporteur recognizes its importance and proposes this new draft article. Paragraph 1 calls upon aquifer States to cooperate among themselves to enter into bilateral or regional arrangements for the purpose of managing a particular transboundary aquifer or aquifer system. The concept of reserving the matter to the group of aquifer States concerned with a particular aquifer is based on the principles set forth in articles 118 (Cooperation of States in the conservation and management of living resources of the high seas) and 197 (Cooperation on a global or regional basis) of the United Nations Convention on the Law of the Sea (UNCLOS).[7] It also corresponds to the watercourse agreements provided for in article 3 of the 1997 Watercourses Convention. In the case of surface watercourses, numerous bilateral and regional agreements have been concluded. However, in the case of groundwaters, such international collective measures are still in an embryonic stage and the framework for coope ation remains to be properly developed. Therefore, the Special Rapporteur has op ed for the term "arrangement" instead of "agreement". This paragraph also provides that the States concerned should have equal opportunity to participate in such arrangements.

13. Paragraph 2 tries to define the relationship between such bilateral and regional arrangements and the draft convention. The draft convention is deemed to be a framework convention and aquifer States are expected to respect the basic principles stipulated therein in formulating such arrangements. However, they are authorized to depart from these principles if the special characteristics of a particular aquifer

[7] Adopted by the Third United Nations Conference on the Law of the Sea at Montego Bay, Jamaica, on 10 December 1982. See *The Law of the Sea: Official Texts of the United Nations Convention on the Law of the Sea of 10 December 1982 and of the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 with Index and Excerpts from the Final Act of the Third United Nations Conference on the Law of the Sea* (United Nations publication, Sales No. E.97.V.10).

require certain adjustments, but such departure should not result in inequitable outcomes among the States concerned. This paragraph is based upon article 3, paragraphs 2 and 5, of the 1997 Watercourses Convention.

14. Paragraph 3 specifies that the bilateral and regional arrangements take priority, as lex specialis, over the draft convention.

VI. Relation to other conventions

15. The proposed draft article on the relation to other conventions and international agreements reads as follows:

Article 4
Relation to other conventions and international agreements

1. When the States Parties to the present Convention are parties also to the Convention on the Law of the Non-navigational Uses of International Watercourses,[6] the provisions of the latter concerning transboundary aquifers or aquifer systems apply only to the extent that they are compatible with those of the present Convention.

2. The present Convention shall not alter the rights and obligations of the States Parties which arise from other agreements compatible with the present Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under the present Convention.

16. As explained in the second report, the draft convention is intended to cover all transboundary aquifers and aquifer systems regardless of whether or not they are related to surface waters.[8] This would result in the dual applicability of the draft convention and the 1997 Watercourses Convention for those aquifers and aquifer systems that constitute, by virtue of their physical relationship, a unitary whole with systems of surface waters. Paragraph 1 addresses this situation. As long as the provisions of the two conventions are compatible, the problem of dual applicability would not arise. Should, however, a conflict between the two arise, the provisions of the present draft convention would prevail, since the 1997 Watercourses Convention was essentially designed to regulate surface waters. Thus, its relevance to groundwaters is rather peripheral. In light of the fact that the 1997 Watercourses Convention is most relevant and a sort of precursor to the draft convention, it has been specifically mentioned in this paragraph.

17. Paragraph 2 is intended to define the relationship between the draft convention and other conventions and international agreements that regulate matters other than groundwaters, but which may have some limited application in this area. An example is the Convention on the Protection and Use of Transboundary Watercourses and International Lakes,[9] concluded under the auspices of the Economic Commission for Europe. Another example is article 194 of UNCLOS (Measures to prevent, reduce and control pollution of the marine environment) and, in particular, its paragraph 3 (a), concerning pollution of land-based sources. Many

[8] A/CN.4/539, para. 14.
[9] Concluded in Helsinki on 17 March 1992, 31 *ILM* 1992.

environmental agreements may also be relevant. If the provisions of the present draft convention and those of other conventions and international agreements are compatible, no problem would arise. If, on the other hand, there is a conflict between the draft convention and another convention or international agreement, it would not be appropriate to stipulate a general rule of priority such as the one set forth in paragraph 1. A decision of such priority would be possible only when the content of the relevant provisions are fully known. Accordingly, the Special Rapporteur has based this paragraph on article 311, paragraph 2 (Relation to other conventions and international agreements), of UNCLOS.

VII. Equitable and reasonable utilization

18. The proposed draft article on equitable and reasonable utilization reads as follows:

Article 5
Equitable and reasonable utilization

1. Aquifer States shall, in their respective territories, utilize a transboundary aquifer or aquifer system in a manner such that the benefits to be derived from such utilization shall accrue equitably to the aquifer States concerned.

2. Aquifer States shall, in their respective territories, utilize a transboundary aquifer or aquifer system in a reasonable manner and, in particular:

(a) With respect to a recharging transboundary aquifer or aquifer system, shall take into account the sustainability of such aquifer or aquifer system and shall not impair the utilization and functions of such aquifer or aquifer system;

(b) With respect to a non-recharging transboundary aquifer or aquifer system, shall aim to maximize the long-term benefits derived from the use of the water contained therein. They are encouraged to establish a development plan for such aquifer or aquifer system, taking into account the agreed lifespan of such aquifer or aquifer system as well as future needs of and alternative water sources for the aquifer States.

3. In the application of paragraphs 1 and 2, aquifer States concerned shall, when the need arises, enter into consultation in a spirit of cooperation.

19. States have sovereign rights over the natural resources located within their jurisdiction and aquifer States are entitled to utilize aquifers and aquifer systems within their territories. It is needless to say that such rights should not be absolute and unlimited. However, the rights of aquifer States are expressed in this article in a positive form. The obligations of aquifer States are to be stipulated in draft articles 7 and after. The rights and obligations of aquifer States should not be confused and must be dealt with separately in different articles, though a proper balance between the rights and obligations must be maintained. The corresponding article 5 of the 1997 Watercourses Convention defines such rights of watercourse States as the right of "equitable utilization" vis-à-vis other watercourse States, on the one hand, and the right of "reasonable utilization" vis-à-vis watercourse resources, on the other hand. Those two principles are often cited in various international instruments dealing with shared and renewable natural resources. As explained in the second

report,[10] the Special Rapporteur was not able at that time to propose a draft article as he was not certain whether the principle of "equitable utilization" could be acceptable to those many aquifer States that opposed the concept of shared natural resources for groundwaters and whether the principle of "reasonable utilization", which is equivalent to "sustainable utilization", could be applied to non-renewable water resources contained in many aquifers.

20. Both the principles of "equitable utilization" and "reasonable utilization" have been incorporated into draft article 5. The Special Rapporteur made the decision to include them in light of the fact that they had not been objected to and had received some support during the discussions in the Commission and the Sixth Committee. The principle of "equitable utilization" provided for in paragraph 1 means the equitable allocation of benefits to be derived from aquifers among the aquifer States concerned. It is, in a sense, an abstract principle. Its implementation must be left to the States concerned and be realized through consultations in good faith among themselves, taking into account the relevant factors listed in draft article 6.

21. The principle of "reasonable utilization", provided for in paragraph 2, relates to the proper management of groundwaters. For renewable natural resources, this principle is well established and is also expressed in other terms, such as "optimal utilization" and "sustainable utilization". It means that the renewable natural resource must be kept at the level that would provide the maximum sustainable yield (MSY). For marine living resources, article 119, paragraph 1 (a), of UNCLOS and almost all fishery agreements uphold the MSY principle. The size of a particular fish stock is kept at the level where the maximum annual catch is possible year after year. Such a level could be determined scientifically by studying the population dynamics of the fish stock. With regard to the renewable water resource of watercourses, no such precise description of this reasonable, optimal or sustainable utilization principle exists. However, it can be presumed that extraction of water is permitted up to the amount of water recharge to the watercourse so that the total quantity of the water in the watercourse remains stable.

22. Paragraph 2 (a) deals with a recharging aquifer. The water contained in a recharging aquifer is a renewable resource. However, it cannot be compared with the renewable water resource of surface watercourses. In most cases, the quantity of contemporary water recharge into an aquifer constitutes only a fraction of the main body of water therein, which has been kept there for hundreds and thousands of years. If we impose a strict rule of sustainable utilization and limit the amount of extraction of water to that of the current water recharge, it would in reality deny aquifer States the right to utilize the valuable water resource, accumulated over the years, in the aquifer. Accordingly, as currently phrased, the paragraph provides that the aquifer should be kept in a condition to maintain its function but it does not impose a strict rule of sustainable use. Paragraph 2 (b) deals with a non-recharging aquifer. The water contained therein is a non-renewable resource. In this case, the principle of sustainable utilization does not apply since any extraction of water in such an aquifer depletes the resource and in the end destroys the aquifer. However, the concept of reasonable utilization should still be viable. In the final analysis, it is for the aquifer States concerned to decide how to utilize this non-renewable resource. Aquifer States should establish a proper development plan for the benefit of both present and future generations.

[10] A/CN.4/539, para. 21.

23. The proposed draft article on factors relevant to equitable and reasonable utilization reads as follows:

Article 6
Factors relevant to equitable and reasonable utilization

1. Utilization of a transboundary aquifer or aquifer system in an equitable and reasonable manner within the meaning of article 5 requires taking into account all relevant factors and circumstances, including:

(a) The natural condition of the aquifer or aquifer system;

(b) The social and economic needs of the aquifer States concerned;

(c) The population dependent on the aquifer or aquifer system in each aquifer State;

(d) The effects of the utilization of the aquifer or aquifer system in one aquifer State on other aquifer States concerned;

(e) The existing and potential utilization of the aquifer or aquifer system;

(f) The development, protection and conservation of the aquifer or aquifer system and the costs of measures to be taken to that effect;

(g) The availability of alternatives, of comparable value, to a particular existing and planned utilization of the aquifer or aquifer system.

2. The weight to be given to each factor is to be determined by its importance in comparison with that of other relevant factors. In determining what is reasonable and equitable utilization, all relevant factors are to be considered together and conclusion reached on the basis of the whole.

24. The rules of equitable and reasonable utilization in draft article 5 are general and flexible. The purpose of draft article 6 is to provide a list, not necessarily exhaustive, of relevant factors and circumstances which should be taken into account in the assessment of what constitutes equitable and reasonable utilization in a specific case. This article mirrors article 6 of the 1997 Watercourses Convention almost word for word. However, paragraph 1 (a) departs from it by referring to the "natural condition" of an aquifer and not listing the natural factors. The rationale behind this is that natural factors should be taken into account, not one by one, but as the characteristics of the aquifer. An indicative list of these natural factors is found in draft article 9, paragraph 1 (data and information to be exchanged), and in draft article 10, paragraph 1 (parameters to be monitored).

VIII. Obligation not to cause harm

25. The proposed draft article on the obligation not to cause harm reads as follows:

Article 7
Obligation not to cause harm

1. Aquifer States shall, in utilizing a transboundary aquifer or aquifer system in their territories, take all appropriate measures to prevent the causing of significant harm to other aquifer States.

2. Aquifer States shall, in undertaking other activities in their territories that have or are likely to have an impact on a transboundary aquifer or aquifer system, take all appropriate measures to prevent the causing of significant harm through that aquifer or aquifer system to other aquifer States.

3. Where significant harm nevertheless is caused to another aquifer State, the aquifer States whose activities cause such harm shall, in the absence of agreement to such activities, take all appropriate measures, having due regard for the provisions of articles 5 and 6, in consultation with the affected State to eliminate or mitigate such harm and, where appropriate, to discuss the question of compensation.

26. Except for some editorial changes, the substance of the draft article remains unchanged from the one proposed in the second report. The debate continues on whether the threshold of "significant harm" is appropriate for the fragile natural resource of groundwaters. As fully explained in his summing up of the debate on the second report in the Commission and in view of the established position of the Commission on this subject, the Special Rapporteur continues to hold the view that it would be better to retain this threshold. With regard to paragraph 3 of the draft article, the delegation of an aquifer State considered that the treatment of liability in this paragraph was unacceptable. Another delegation pointed out that the issue of liability in relation to the question of compensation could be dealt with under the topic "international liability". Article 7, paragraph 2, of the 1997 Watercourses Convention contains the same provision and was proposed by the Commission based on existing State practice.[11] The paragraph was not contested and was adopted by consensus in the General Assembly. The objective of the paragraph is to address the question of ex post facto prevention (prevention after the harm is caused). Compensation is only referred to as a question that may be discussed. The Special Rapporteur is in agreement with the view that it would be preferable to deal with the issue of liability in another forum.

[11] Yearbook of the International Law Commission, vol. II, Part Two (A/CN.4/SER.A/Add.1 (Part 2)), p. 105, footnote 244.

IX. Obligation to cooperate

27. The proposed draft articles on a general obligation to cooperate and on the exchange data and information read as follows:

Article 8
General obligation to cooperate

1. Aquifer States shall cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain reasonable utilization and adequate protection of a transboundary aquifer or aquifer system.

2. In determining the manner of such cooperation, aquifer States are encouraged to establish joint mechanisms or commissions, as deemed necessary by them, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions.

Article 9
Regular exchange of data and information

1. Pursuant to article 8, aquifer States shall, on a regular basis, exchange readily available data and information on the condition of the transboundary aquifer or aquifer system, in particular that of a geological, hydrogeological, hydrological, meteorological and ecological nature and related to the hydrochemistry of the aquifer or aquifer system, as well as related forecasts.

2. In the light of uncertainty about the nature and extent of some transboundary aquifer or aquifer systems, aquifer States shall employ their best efforts to collect and generate, in accordance with currently available practice and standards, individually or jointly and, where appropriate, together with or through international organizations, new data and information to identify the aquifer or aquifer systems more completely.

3. If an aquifer State is requested by another aquifer State to provide data and information that is not readily available, it shall employ its best efforts to comply with the request, but may condition its compliance upon payment by the requesting State of the reasonable costs of collecting and, where appropriate, processing such data or information.

4. Aquifer States shall employ their best efforts to collect and, where appropriate, to process data and information in a manner that facilitates its utilization by the other aquifer States to which it is communicated.

28. Except for the change of "appropriate utilization" to "reasonable utilization" in draft article 8, paragraph 1, these two draft articles remain as they were in the second report. It is presumed that these draft articles would be acceptable as they have attracted no comments. With respect to draft article 9, the data and information to be exchanged include not only raw statistics but also results of research and analysis.

X. Monitoring

29. A new draft article on monitoring is proposed and reads as follows:

Article 10
Monitoring

For the purpose of being well acquainted with the conditions of a transboundary aquifer or aquifer system:

1. Aquifer States shall agree on harmonized standards and methodology for monitoring a transboundary aquifer or aquifer system. They shall identify key parameters that they will monitor based on an agreed conceptual model of the aquifer or aquifer system. These parameters shall include extent, geometry, flow path, hydrostatic pressure distribution, quantities of flow and hydrochemistry of the aquifer or aquifer system.

2. Aquifer States shall undertake to monitor such parameters referred to in paragraph 1 and shall, wherever possible, carry out these monitoring activities jointly among themselves and in collaboration with the competent international organizations. Where, however, monitoring activities are not carried out jointly, aquifer States shall exchange the monitored data.

30. There is an increasing practice to provide for the monitoring of the management of groundwaters. Arrangements have been established for aquifers, such as the Nubian Sandstone Aquifer System, the Carpathians in Eastern Europe, the Danube River, the Sava River Basin in the Balkans and the Lake Victoria Basin. The Economic Commission for Europe has also included provisions on monitoring in its Charter on Groundwater Management as well as in its Guidelines on Monitoring and Assessment of Groundwaters. The purpose of monitoring is to gain basic knowledge of the specific aquifer, which offers an essential basis for proper management of that aquifer. In order to make the monitored data compatible and easily usable by other aquifer States concerned, the key parameters to be monitored must be selected on the basis of a conceptual model of the aquifer, agreed upon by the States concerned. The conceptual model provides information on the characteristics of the aquifer and its functioning. It includes a thorough hydrogeological evaluation of the various types of geological materials present in the aquifer. It also includes the illustration of the aquifer and its regional flow, the formulation of the water balance, the identification of recharge and discharge data, and the determination of the aquifer boundaries and its permeability and storage.

XI. Relationship between different kinds of utilization

31. The proposed draft article on the relationship between different kinds of utilization of aquifers remains unchanged from the second report except for some editorial corrections and reads as follows:

Article 11
Relationship between different kinds of utilization

1. In the absence of agreement or custom to the contrary, no utilization of a transboundary aquifer or aquifer system enjoys inherent priority over other utilization.

2. In the event of a conflict between utilization of a transboundary aquifer or aquifer system, it shall be resolved with special regard being given to the requirements of vital human needs.

XII. Protection, preservation and management

32. Four draft articles are proposed for part III, entitled "Protection, preservation and management". Three draft articles on protection and preservation of aquifers precede an article on management. Protection and preservation of an aquifer are prerequisites for the equitable and reasonable utilization of such an aquifer. The proposed three draft articles read as follows:

Article 12
Protection and preservation of ecosystems

Aquifer States shall protect and preserve ecosystems within a transboundary aquifer or aquifer system. They shall also ensure adequate quality and sufficient quantity of discharge water to protect and preserve outside ecosystems dependent on the aquifer or aquifer system.

Article 13
Protection of recharge and discharge zones

1. Aquifer States shall identify recharge zones of a transboundary aquifer or aquifer system and, within these zones, shall take special measures to minimize detrimental impacts on the recharge process and also take all measures to prevent pollutants from entering the aquifer or aquifer system.

2. Aquifer States shall identify discharge zones of a transboundary aquifer or aquifer system and, within these zones, shall take special measures to minimize detrimental impacts on the discharge process.

3. When such recharge or discharge zones are located in the territories of States other than aquifer States, aquifer States should seek the cooperation of the former States to protect these zones.

Article 14
Prevention, reduction and control of pollution

Aquifer States shall, individually and, where appropriate, jointly, prevent, reduce and control the pollution of a transboundary aquifer or aquifer system that may cause significant harm to other aquifer States or to their environment. In the light of uncertainty about the nature and extent of some transboundary aquifers or aquifer systems, aquifer States are encouraged to take a precautionary approach.

33. These three draft articles should not be construed as environmental protection provisions. The objectives of the draft articles are not to protect and preserve aquifers for the sake of aquifers but to protect and preserve them so that humankind could utilize the precious water resources contained therein. Draft article 12 obliges aquifer States to protect and preserve ecosystems inside aquifers as well as ecosystems outside aquifers, dependent on the aquifers. The term "ecosystem" is more precise than the concept "environment surrounding aquifers". Draft article 13 deals with the protection and preservation of recharge and discharge zones of aquifers. These zones are outside the aquifers as defined in draft article 2 (a). However, preventive measures are still required in order not to pollute aquifers or impair their normal function. Where there are artificial facilities for recharge or discharge, such facilities will also be covered by this article. When a recharge or discharge zone is located outside the territories of aquifer States and in non-aquifer States, it would be difficult to place any obligation on such non-aquifer States as they do not benefit from the aquifers. Thus, draft article 13, paragraph 3, requests their voluntary cooperation. Draft article 14 deals with the problem of pollution of aquifers. It is conceivable that an aquifer State could pollute a transboundary aquifer but not cause significant harm to other aquifer States or their environment. This could occur where the pollution remains in the original State over a long period of time, or where other States are not presently utilizing the aquifer and where their environment is not reliant on it. This situation might be covered to some extent by the expression "the pollution ... that may cause ...". As a lengthy process is often required to discover pollution and to determine its causal link, as well as to remove it, groundwater scientists strongly favour the application of the precautionary principle. While the Special Rapporteur is sympathetic to this position, he is of the view that the precautionary principle has not yet developed as a rule of general international law. Accordingly, in this draft article, he has adopted the term "precautionary approach".

34. The proposed draft article on management reads as follows:

Article 15
Management

Aquifer States shall undertake to establish plans and implement these plans for the proper management of a transboundary aquifer or aquifer system in accordance with the provisions of the present Convention. They shall, at the request by any of them, enter into consultations concerning the management of a transboundary aquifer or aquifer system, which may include the establishment of a joint management mechanism.

35. Draft article 15 recognizes the importance of cooperation by aquifer States in managing transboundary aquifers with a view to ensuring their protection and preservation as provided for in draft articles 12 to 14 and to maximizing the benefits to the aquifer States through equitable and reasonable utilization of the aquifers. This article simply offers the modalities and mechanisms of such management. The outcome of the consultations is left in the hands of the aquifer States concerned.

XIII. Activities affecting other States

36. Two draft articles are proposed for part IV on activities affecting other States. They read as follows:

Article 16
Assessment of potential effects of activities

When an aquifer State has reasonable grounds for believing that a particular planned activity in its territory may cause adverse effects on a transboundary aquifer or aquifer system, it shall, as far as practicable, assess the potential effects of such activity.

Article 17
Planned activities

1. Before an aquifer State implements or permits the implementation of planned activities which may have a significant adverse effect upon other aquifer States, it shall provide those States with timely notification thereof. Such notification shall be accompanied by available technical data and information, including any environmental impact assessment, in order to enable the notified States to evaluate the possible effects of the planned activities.

2. If the notifying State and the notified States disagree on the effect of the planned activities, they shall enter into consultations and, if necessary, negotiations with a view to arriving at an equitable resolution of the situation. They may utilize an independent fact-finding body which may be able to make an impartial assessment of the effect of the planned activities.

37. The 1997 Watercourses Convention contains nine articles on planned measures which may have a significant adverse effect upon other watercourse States, setting out detailed procedures to be followed by States concerned. In the case of surface waters, there have been innumerable activities and resulting disputes among States and such detailed procedures are required. Although the Commission has not yet had a focused discussion on this issue, the Special Rapporteur felt that a provision containing a much simpler arrangement for groundwaters was generally preferred. Accordingly, he has decided to set aside most of the procedural requirements contained in the 1997 Watercourses Convention. Draft article 16 is based upon article 11 of that Convention. Draft article 17, paragraph 1, is extracted from article 12 of that Convention and draft article 17, paragraph 2, incorporates elements from its article 17, paragraph 1, and article 33, paragraph 3 (fact-finding body). In essence, these draft articles are designed to emphasize the importance of cooperation between States in order to avoid disputes arising from planned activities. As long as an aquifer State fulfils the obligation to inform and hold consultations with the would-be affected States, nothing in the draft prevents the aquifer State from proceeding with the planned activities without the consent of the affected States. It can implement its planned activities at its own risk, though the issue of liability may arise.

XIV. Miscellaneous provisions

38. Four draft articles are proposed for part V, entitled "Miscellaneous provisions". The first of them is article 18 on scientific and technical assistance to developing States, which reads as follows:

Article 18
Scientific and technical assistance to developing States

States shall, directly or through competent international organizations, provide scientific, educational, technical and other assistance to developing States for the protection and management of a transboundary aquifer or aquifer system. Such assistance shall include, inter alia:

(a) Training of their scientific and technical personnel;

(b) Facilitating their participation in relevant international programmes;

(c) Supplying them with necessary equipment and facilities;

(d) Enhancing their capacity to manufacture such equipment;

(e) Providing advice on and developing facilities for research, monitoring, educational and other programmes;

(f) Minimizing the effects of major activities affecting transboundary aquifers or aquifer systems;

(g) Preparing environmental impact assessments.

39. As explained in the first report,[12] the science relating to groundwaters is relatively young. Although the science has advanced to a certain extent in Europe, little is known about aquifers and the precious water resources stored in them in the developing world. For proper management of these resources, it is vital for the developing aquifer States to receive scientific and technical assistance. Draft article 18 finds its roots in article 202 (Scientific and technical assistance to developing States) of UNCLOS.

40. The proposed draft article on emergency situations reads as follows:

Article 19
Emergency situations

1. An aquifer State shall, without delay and by the most expeditious means available, notify other potentially affected States and competent international organizations of any emergency situation originating within its territory that causes, or poses an imminent threat of causing, serious harm to other States and that results suddenly from natural causes or from human conduct.

2. An aquifer State within whose territory an emergency situation originates shall, in cooperation with potentially affected States and, where appropriate, competent international organizations, immediately take all practicable

[12] A/CN.4/533, para.22.

measures necessitated by the circumstances to prevent, mitigate and eliminate harmful effects of the emergency situation.

3. Where water is critical to alleviate an emergency situation, aquifer States may derogate from the provisions of the articles in parts II to IV of the present Convention to the extent necessary to alleviate the emergency situation.

41. Article 28 of the 1997 Watercourses Convention encompasses provisions on emergency situations. Many catastrophic accidents relating to watercourses occur as a result of natural causes, such as floods, landslides, breaking up of ice or earthquakes, or of human causes, such as industrial accidents or the collapse of dams. The Special Rapporteur initially did not think that an article on emergency situations was required because he could not foresee similar catastrophes affecting groundwaters. He changed his mind in view of the devastating tsunami disaster along the coast of the Indian Ocean, which resulted from a great earthquake that occurred off Banda Aceh, Indonesia, in December 2004. Although no definite studies have yet been published, a great number of aquifers must have been negatively affected. Owing to the destruction of the discharge processes, salinization of aquifers might have occurred. In consultation with groundwater experts, this draft article was prepared to cope with such situations.

42. Two additional draft articles are proposed. One is on the protection of aquifers and their installations in time of armed conflict and the other is on data and information vital to national defence or security. Both articles are self-explanatory and read as follows:

Article 20
Protection in time of armed conflict

Transboundary aquifers or aquifer systems and related installations, facilities and other works shall enjoy the protection accorded by the principles and rules of international law applicable in international and non-international armed conflict and shall not be used in violation of those principles and rules.

Article 21
Data and information vital to national defence or security

Nothing in the present Convention obliges an aquifer State to provide data or information vital to its national defence or security. Nevertheless, that State shall cooperate in good faith with other aquifer States with a view to providing as much information as possible under the circumstances.

XV. Final clauses

43. Draft provisions on final clauses have been prepared. Draft article 22 relates to signature, draft article 23 relates to ratification, draft article 24 relates to entry into force and draft article 25 relates to authentic texts. These are followed by a usual testimonium clause. These drafts articles need not be presented here. However, for ease of reference, all draft articles, including the final clauses, are reproduced in the annex to the present report.

Annex

Draft convention on the law of transboundary aquifers

Part I
Introduction

Article 1
Scope of the present Convention

The present Convention applies to:

(a) Utilization of transboundary aquifers and aquifer systems;

(b) Other activities that have or are likely to have an impact upon those aquifers and aquifer systems;

(c) Measures of protection, preservation and management of those aquifers and aquifer systems.

Article 2
Use of terms

For the purposes of the present Convention:

(a) "Aquifer" means a permeable [water-bearing] geological formation underlain by a less permeable layer and the water contained in the saturated zone of the formation;

(b) "Aquifer system" means a series of more than two aquifers [, each associated with specific geological formations,] that are hydraulically connected;

(c) "Transboundary aquifer" or "transboundary aquifer system" means, respectively, an aquifer or aquifer system, parts of which are situated in different States;

(d) "Aquifer State" means a State Party to the present Convention in whose territory any part of a transboundary aquifer or aquifer system is situated;

(e) "Recharging aquifer" means an aquifer that receives a non-negligible amount of contemporary water recharge;

(f) "Non-recharging aquifer" means an aquifer that receives a negligible amount of contemporary water recharge.

Article 3
Bilateral and regional arrangements

1. For the purpose of managing a particular transboundary aquifer or aquifer system, aquifer States in whose territories such an aquifer or aquifer system is located are encouraged to enter into a bilateral or regional arrangement among themselves. Such arrangement may be entered into with respect to an entire aquifer or aquifer system or any part thereof or a particular project, programme or use except insofar as the arrangement adversely affects, to a significant extent, the use by one or more other aquifer States of the water in that aquifer or aquifer system, without their express consent. Any State in whose territory such an aquifer or

aquifer system is located is entitled to participate in the negotiation and to become a party to arrangements when such arrangements are likely to prejudice their positions vis-à-vis that aquifer or aquifer system.

2. Parties to an arrangement referred to in paragraph 1 shall consider harmonizing such arrangement with the basic principles of the present Convention. Where those parties consider that adjustment in application of the provisions of the present Convention is required because of the characteristics and special uses of a particular aquifer or aquifer system, they shall consult with a view to negotiating in good faith for the purpose of concluding an arrangement beneficial to all the parties.

3. In the absence of an agreement to the contrary, the present Convention applies to the aquifer or aquifer system referred to in paragraph 1 only to the extent that its provisions are compatible with those of the arrangement referred to in the same paragraph.

Article 4
Relation to other conventions and international agreements

1. When the States Parties to the present Convention are parties also to the Convention on the Law of the Non-navigational Uses of International Watercourses,[a] the provisions of the latter concerning transboundary aquifers or aquifer systems apply only to the extent that they are compatible with those of the present Convention.

2. The present Convention shall not alter the rights and obligations of the States Parties which arise from other agreements compatible with the present Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under the present Convention.

Part II
General principles

Article 5 [Article 3][b]
Equitable and reasonable utilization

1. Aquifer States shall, in their respective territories, utilize a transboundary aquifer or aquifer system in a manner such that the benefits to be derived from such utilization shall accrue equitably to the aquifer States concerned.

2. Aquifer States shall, in their respective territories, utilize a transboundary aquifer or aquifer system in a reasonable manner and, in particular:

(a) With respect to a recharging transboundary aquifer or aquifer system, shall take into account the sustainability of such aquifer or aquifer system and shall not impair the utilization and functions of such aquifer or aquifer system;

(b) With respect to a non-recharging transboundary aquifer or aquifer system, shall aim to maximize the long-term benefits derived from the use of the water contained therein. They are encouraged to establish a development plan for such aquifer or aquifer system, taking into account the agreed lifespan of such

[a] General Assembly resolution 51/229, annex.
[b] Article numbers in brackets are those given in the second report (A/CN.4/539 and Add.1).

aquifer or aquifer system as well as future needs of and alternative water sources for the aquifer States.

3. In the application of paragraphs 1 and 2, aquifer States concerned shall, when the need arises, enter into consultation in a spirit of cooperation.

Article 6
Factors relevant to equitable and reasonable utilization

1. Utilization of a transboundary aquifer or aquifer system in an equitable and reasonable manner within the meaning of article 5 requires taking into account all relevant factors and circumstances, including:

(a) The natural condition of the aquifer or aquifer system;

(b) The social and economic needs of the aquifer States concerned;

(c) The population dependent on the aquifer or aquifer system in each aquifer State;

(d) The effects of the utilization of the aquifer or aquifer system in one aquifer State on other aquifer States concerned;

(e) The existing and potential utilization of the aquifer or aquifer system;

(f) The development, protection and conservation of the aquifer or aquifer system and the costs of measures to be taken to that effect;

(g) The availability of alternatives, of comparable value, to a particular existing and planned utilization of the aquifer or aquifer system.

2. The weight to be given to each factor is to be determined by its importance in comparison with that of other relevant factors. In determining what is reasonable and equitable utilization, all relevant factors are to be considered together and conclusion reached on the basis of the whole.

Article 7 [Article 4]
Obligation not to cause harm

1. Aquifer States shall, in utilizing a transboundary aquifer or aquifer system in their territories, take all appropriate measures to prevent the causing of significant harm to other aquifer States.

2. Aquifer States shall, in undertaking other activities in their territories that have or are likely to have an impact on a transboundary aquifer or aquifer system, take all appropriate measures to prevent the causing of significant harm through that aquifer or aquifer system to other aquifer States.

3. Where significant harm nevertheless is caused to another aquifer State, the aquifer States whose activities cause such harm shall, in the absence of agreement to such activities, take all appropriate measures, having due regard for the provisions of articles 5 and 6, in consultation with the affected State to eliminate or mitigate such harm and, where appropriate, to discuss the question of compensation.

Article 8 [Article 5]
General obligation to cooperate

1. Aquifer States shall cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain reasonable utilization and adequate protection of a transboundary aquifer or aquifer system.

2. In determining the manner of such cooperation, aquifer States are encouraged to establish joint mechanisms or commissions, as deemed necessary by them, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions.

Article 9 [Article 6]
Regular exchange of data and information

1. Pursuant to article 8, aquifer States shall, on a regular basis, exchange readily available data and information on the condition of the transboundary aquifer or aquifer system, in particular that of a geological, hydrogeological, hydrological, meteorological and ecological nature and related to the hydrochemistry of the aquifer or aquifer system, as well as related forecasts.

2. In the light of uncertainty about the nature and extent of some transboundary aquifer or aquifer systems, aquifer States shall employ their best efforts to collect and generate, in accordance with currently available practice and standards, individually or jointly and, where appropriate, together with or through international organizations, new data and information to identify the aquifer or aquifer systems more completely.

3. If an aquifer State is requested by another aquifer State to provide data and information that is not readily available, it shall employ its best efforts to comply with the request, but may condition its compliance upon payment by the requesting State of the reasonable costs of collecting and, where appropriate, processing such data or information.

4. Aquifer States shall employ their best efforts to collect and, where appropriate, to process data and information in a manner that facilitates its utilization by the other aquifer States to which it is communicated.

Article 10
Monitoring

For the purpose of being well acquainted with the conditions of a transboundary aquifer or aquifer system:

1. Aquifer States shall agree on harmonized standards and methodology for monitoring a transboundary aquifer or aquifer system. They shall identify key parameters that they will monitor based on an agreed conceptual model of the aquifer or aquifer system. These parameters shall include extent, geometry, flow path, hydrostatic pressure distribution, quantities of flow and hydrochemistry of the aquifer or aquifer system.

2. Aquifer States shall undertake to monitor such parameters referred to in paragraph 1 and shall, wherever possible, carry out these monitoring activities jointly among themselves and in collaboration with the competent international

organizations. Where, however, monitoring activities are not carried out jointly, aquifer States shall exchange the monitored data.

Article 11 [Article 7]
Relationship between different kinds of utilization

1. In the absence of agreement or custom to the contrary, no utilization of a transboundary aquifer or aquifer system enjoys inherent priority over other utilization.

2. In the event of a conflict between utilization of a transboundary aquifer or aquifer system, it shall be resolved with special regard being given to the requirements of vital human needs.

Part III
Protection, preservation and management

Article 12
Protection and preservation of ecosystems

Aquifer States shall protect and preserve ecosystems within a transboundary aquifer or aquifer system. They shall also ensure adequate quality and sufficient quantity of discharge water to protect and preserve outside ecosystems dependent on the aquifer or aquifer system.

Article 13
Protection of recharge and discharge zones

1. Aquifer States shall identify recharge zones of a transboundary aquifer or aquifer system and, within these zones, shall take special measures to minimize detrimental impacts on the recharge process and also take all measures to prevent pollutants from entering the aquifer or aquifer system.

2. Aquifer States shall identify discharge zones of a transboundary aquifer or aquifer system and, within these zones, shall take special measures to minimize detrimental impacts on the discharge process.

3. When such recharge or discharge zones are located in the territories of States other than aquifer States, aquifer States should seek the cooperation of the former States to protect these zones.

Article 14
Prevention, reduction and control of pollution

Aquifer States shall, individually and, where appropriate, jointly, prevent, reduce and control the pollution of a transboundary aquifer or aquifer system that may cause significant harm to other aquifer States or to their environment. In the light of uncertainty about the nature and extent of some transboundary aquifers or aquifer systems, aquifer States are encouraged to take a precautionary approach.

Article 15
Management

Aquifer States shall undertake to establish plans and implement these plans for the proper management of a transboundary aquifer or aquifer system in accordance with the provisions of the present Convention. They shall, at the request by any of them, enter into consultations concerning the management of a transboundary aquifer or aquifer system, which may include the establishment of a joint management mechanism.

Part IV
Activities affecting other States

Article 16
Assessment of potential effects of activities

When an aquifer State has reasonable grounds for believing that a particular planned activity in its territory may cause adverse effects on a transboundary aquifer or aquifer system, it shall, as far as practicable, assess the potential effects of such activity.

Article 17
Planned activities

1. Before an aquifer State implements or permits the implementation of planned activities which may have a significant adverse effect upon other aquifer States, it shall provide those States with timely notification thereof. Such notification shall be accompanied by available technical data and information, including any environmental impact assessment, in order to enable the notified States to evaluate the possible effects of the planned activities.

2. If the notifying State and the notified States disagree on the effect of the planned activities, they shall enter into consultations and, if necessary, negotiations with a view to arriving at an equitable resolution of the situation. They may utilize an independent fact-finding body which may be able to make an impartial assessment of the effect of the planned activities.

Part V
Miscellaneous provisions

Article 18
Scientific and technical assistance to developing States

States shall, directly or through competent international organizations, provide scientific, educational, technical and other assistance to developing States for the protection and management of a transboundary aquifer or aquifer system. Such assistance shall include, inter alia:

(a) Training of their scientific and technical personnel;

(b) Facilitating their participation in relevant international programmes;

(c) Supplying them with necessary equipment and facilities;

(d) Enhancing their capacity to manufacture such equipment;

(e) Providing advice on and developing facilities for research, monitoring, educational and other programmes;

(f) Minimizing the effects of major activities affecting transboundary aquifers or aquifer systems;

(g) Preparing environmental impact assessments.

Article 19
Emergency situations

1. An aquifer State shall, without delay and by the most expeditious means available, notify other potentially affected States and competent international organizations of any emergency situation originating within its territory that causes, or poses an imminent threat of causing, serious harm to other States and that results suddenly from natural causes or from human conduct.

2. An aquifer State within whose territory an emergency situation originates shall, in cooperation with potentially affected States and, where appropriate, competent international organizations, immediately take all practicable measures necessitated by the circumstances to prevent, mitigate and eliminate harmful effects of the emergency situation.

3. Where water is critical to alleviate an emergency situation, aquifer States may derogate from the provisions of the articles in parts II to IV of the present Convention to the extent necessary to alleviate the emergency situation.

Article 20
Protection in time of armed conflict

Transboundary aquifers or aquifer systems and related installations, facilities and other works shall enjoy the protection accorded by the principles and rules of international law applicable in international and non-international armed conflict and shall not be used in violation of those principles and rules.

Article 21
Data and information vital to national defence or security

Nothing in the present Convention obliges an aquifer State to provide data or information vital to its national defence or security. Nevertheless, that State shall cooperate in good faith with other aquifer States with a view to providing as much information as possible under the circumstances.

Part VI
Final clauses

Article 22
Signature

The present Convention shall be open for signature by all States from ... until ... at United Nations Headquarters in New York.

Article 23
Ratification, acceptance, approval or accession

The present Convention is subject to ratification, acceptance, approval or accession by States. The instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations.

Article 24
Entry into force

1. The present Convention shall enter into force on the ... day following the date of deposit of the ... instrument of ratification, acceptance, approval or accession with the Secretary-General of the United Nations.

2. For each State that ratifies, accepts or approves the Convention or accedes thereto after the deposit of the ... instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ... day after the deposit by such State of its instrument of ratification, acceptance, approval or accession.

Article 25
Authentic texts

The original of the present Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF, the undersigned plenipotentiaries, being duly authorized thereto, have signed this Convention.

DONE at New York, this ____ day of _____ two thousand _____.

United Nations A/CN.4/551/Corr.1

General Assembly

Distr.: General
14 March 2005

Original: English

International Law Commission
Fifty-seventh session
Geneva, 2 May-3 June 2005 and 4 July-5 August 2005

Third report on shared natural resources: transboundary groundwaters

by Mr. Chusei Yamada, Special Rapporteur

Corrigendum

Draft article 2 (b) in paragraph 7 and in the annex

Draft article 2 (b) *should read*

"Aquifer system" means a series of two or more aquifers [, each associated with specific geological formations,] that are hydraulically connected;

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